INDEX TO VOLUME XLIV, 1932

PAGE

Aeronautics, The Biggest British Flying-Boat (Note) 549
Aeronautics—Tragedy of *R–101*, Discussion, by E. F. Spanner 358
Aeronautics—Tragedy of *R–101*, Discussion, by C. P. Burgess 362
Aircraft Engine, Junkers *Jumo 4* Heavy-oil (Note) 104
Aircraft Engine, Pratt and Whitney, Twin Wasp Junior (Note) 371
Air Extractors, Centrifugal (Note) 374
Air Dryers, Portable—Hydro-Carbon Gas Detectors, Commutator Resurfacers, Commutator Undercutters and Safety Glass; The Trend of Naval Engineering, by C. Huey 30
Airplane Carriers *Lexington* and *Saratoga*, Estimated and Actual Engineering Performances of, by H. L. Dodson 141
Alternating Current in the Electric Plant on Naval Vessels, by T. E. Cassey 457
Alternating Current Motors and Generators, Theory; The Trend in Naval Engineering, by C. Huey 521
Aluminum Foil Heat Insulation, by T. A. Solberg and W. P. Sinclair 206
Aluminum, Welding, Practical Points on (Note) 269
Association Notes 137, 282, 405, 566
Aviation Gasoline, Naval, Testing of, by B. P. Ward and W. P. Sinclair 285
Aviator's Goggles, Electric Switches, Scaling Hammers, Vegetable Peelers and Substitutes for Brass; The Trend in Naval Engineering, by C. Huey 206
Ball Versus Tapered Roller Bearings, by J. E. Hamilton 407
Batteries, Storage, Alkaline, by F. Brehme 214
Battleship, The First Motor (Note) 93
Bearings, Ball Versus Tapered Roller, by J. E. Hamilton 407
Boats—*Miss England III* (Note) 365
Boats—*Miss America X* (Note) 365
Boats, New Patrol for U. S. Coast Guard, by Harvey F. Johnson 53
Boiler Design, Yarrow, Developments in (Note) 263
Boiler for Panama Mail Liners, Preliminary Test of Boiler for (Note) 265
Boiler Pressure and Temperature Progress (Note) 373
Boiler, The Purdue High Pressure (Note) 124
Book Review 131, 281, 405
Brass and Bronze Castings, Influence of Design on (Note) 385

PAGE

Brass, Substitutes for, Aviator's Goggles, Electric Switches, Scaling Hammers and Vegetable Peelers; The Trend in Naval Engineering, by C. Huey 206
Brehme, F., Alkaline Storage Batteries 214
Bronze and Brass Castings, Influence of Design on (Note) 385
Burgess, C. P., Discussion, Tragedy of *R-101* 362
Cassard, French Flotilla Leader (Note) 549
Cassey, T. E., Alternating Current in the Electric Plant on Naval Vessels 457
Casting—A Method for Determining the Volume Changes Occuring in Metals During Casting, Summary of (Note) 271
Castings, Brass and Bronze, Influence of Design on (Note) 385
Centrifugal Air Extractors (Note) 374
Colloidal Fuels for Marine Service (Note) 374
Commutator Resurfacers, Hydro-Carbon Gas Detectors, Commutator Undercutters, Portable Air Dryers and Safety Glass; The Trend of Naval Engineering, by C. Huey 30
Commutator Undercutters, Hydro-Carbon Gas Detectors, Commutator Resurfacers, Portable Air Dryers and Safety Glass; The Trend of Naval Engineering, by C. Huey 30
Construction, Output in Shipyards of the United States During 1931 (Note) 240
Construction, Motorship, Fall in (Note) 245
Construction, Naval, in 1931 (Note) 226
Cooke, J. F., The Hele-Shaw Hydraulic Transmission 25
Corrosion, Metals, Protection Against (Note) 118
Cox, O. L., Captain, U. S. N., Matson Liner S. S. *Mariposa*, Description and Trials 66
Creep, Practical Aspect of (Note) 365
Crew, Professor William H., Waves 298
Davis, H. F. D., Commander, U. S. N., Some Comparisons in Propeller Design Methods 8
Davis, H. F. D., Commander, U. S. N., Ship Trial Analysis to Obtain Propeller Design Factors 332
Design; A New Deal in Engines (Note) 551
Design, Boiler, Yarrow, Developments in (Note) 263
Design, Engine, Metals of Oil Engine Construction (Note) 551
Design, Propellers, Some Comparisons in Method of, by H. F. D. Davis 8
Design, Naval Architecture, Transverse Ship Sections 550
Design Factors, Propeller, Ship Trial Analysis to Obtain, by H. F. D. Davis 332
Design, Influence of, on Brass and Bronze Castings (Note) 385
Destroyer Flotilla Leader, French, *Cassard* (Note) 549
Discussion, Some Comparisons in Propeller Design Methods, by J. M. Irish 222

PAGE
Discussion, the Tragedy of *R–101*, by E. F. Spanner 358
Discussion, Tragedy of *R–101*, by C. P. Burgess 362
Dodson, H. L., Lieut., U. S. N., Estimated and Actual Engineering Performances of U. S. Airplane Carriers *Lexington* and *Saratoga* 141
Electric Plant, of Naval Vessels, Alternating Current in, by T. E. Cassey 457
Electric Switches, Aviator's Goggles, Scaling Hammers, Vegetable Peelers and Substitutes for Brass; The Trend in Naval Engineering, by C. Huey 206
Engineering Experiment Station, U. S. Naval, Annapolis, Md., Discovered, by Carl J. Lamb 38
Engineering, Marine, Technical Progress in During 1931 (Note) 248
Engineering, Trend in Naval; Hydro-Carbon Gas Detectors, Commutator Resurfacers, Commutator Undercutters, Portable Air Dryers and Safety Glass, by C. Huey 30
Engineering, Trend in Naval; Aviator's Goggles, Electric Switches, Scaling Hammers, Vegetable Peelers and Substitutes for Brass; The Trend in Naval Engineering, by C. Huey 206
Engineering, Trend in Naval; Oil Purifiers, Laundry Washers, Steering Controls, Voice Projectors and Searchlights, by C. Huey 317
Engineering, The Trend in Naval; Alternating Current Motors and Generators, Theory, by C. Huey 521
Engineering Performances, U. S. Airplane Carriers *Lexington* and *Saratoga*, Estimated and Actual, by H. L. Dodson 141
Engineering, Some Experiences Afloat, by T. A. Solberg 430
Engines, a New Deal in (Note) 551
Engine, Internal Combustion, Effect of Humidity on Power of (Note) 371
Engine, Junkers *Jumo 4* Heavy-oil Aircraft (Note) 104
Engines; Metals of Oil Engine Construction (Note) 552
Engine, Pratt and Whitney Twin Wasp Junior (Note) 371
Experiment Station, U. S. Naval Engineering, Annapolis, Md., Discovered, by Carl J. Lamb 38
Feed Water Tanks, Reserve, Protective Covering for, by B. P. Ward 333
Flotilla Leader, French, *Cassard* (Note) 549
Flying Boat, The Biggest British (Note) 549
Formulas and Tables, New Helical Spring (Note) 375
Fuels, Colloidal, for Marine Service (Note) 374
Gasoline, Naval Aviation, Testing of, by B. P. Ward and W. P. Sinclair 285
Generators and Motors, Alternating Current, Theory; The Trend in Naval Engineering, by C. Huey 521
Hamilton, J. E., Lieut., U. S. N., Ball Versus Tapered Roller Bearings 407
Hardenning, Surface, by Nitrogen, of Aluminum-Chromium-Molybdenum Steels (Note) 109
Heat Insulation, Aluminum Foil, by T. A. Solberg and W. P. Sinclair 200

PAGE

Hele-Shaw Hydraulic Transmission, by J. F. Cooke 25
Helical Spring Formulas and Tables, New (Note) 375
Huey, C., the Trend of Naval Engineering; Hydro-Carbon Gas Detectors, Commutator Resurfacers, Commutator Undercutters, Portable Air Dryers and Safety Glass 30
Huey, C., the Trend in Naval Engineering; Aviator's Goggles, Electric Switches, Scaling Hammers, Vegetable Peelers and Substitutes for Brass 206
Huey, C., The Trend in Naval Engineering; Oil Purifiers, Laundry Washers, Steering Controls, Voice Projectors, and Searchlights 317
Huey, C., The Trend in Naval Engineering; Alternating Current Motors and Generators, Theory, by C. Huey 521
Humidity, Effect of on Power of Internal Combustion Engine (Note) 371
Hydraulic Transmission, Hele-Shaw, by J. F. Cooke 25
Hydro-Carbon Gas Detectors, Commutator Resurfacers, Commutator Undercutters, Portable Air Dryers and Safety Glass; The Trend of Naval Engineering, by C. Huey 30
Insulation, Heat, Aluminum Foil, by T. A. Solberg and W. P. Sinclair 200
Irish, J. M., Commander, U. S. N., Discussion. Some Comparisons in Propeller Design Methods, a Criticism 222
Johnson, Harvey F., Commander, U. S. C. G., New Patrol Boats for the U. S. Coast Guard 53
Junkers *Jumo 4* Heavy-oil Aircraft Engine (Note) 104
Konel, A Platinum Substitute (Note) 268
Lamb, Carl J., Lieut., U. S. N. R., Discovered, The United States Naval Engineering Experiment Station, Annapolis, Md 38
Laundry Washers, Oil Purifiers, Steering Controls, Voice Projectors, and Searchlights; The Trend in Naval Engineering, by C. Huey 317
Lexington and *Saratoga,* U. S. Airplane Carriers; Estimated and Actual Engineering Performances of, by H. L. Dodson 141
Lincoln, J. C., The Shielded Arc Process of Welding 1
Manhattan, United States Lines Liner, Description and Trials, by M. W. Torbet 480
Mariposa, Matson Liner, Description and Trials, by O. L. Cox 66
Materials, Test Results and Service Value of (Note) 559
Mathematics, Usefulness of to Engineers (Note) 272
Matson Liner S. S. *Mariposa,* Description and Trials, by O. L. Cox 66
McAllister, Charles A., Obituary 135
Metals, A Method for Determining the Volume Changes Occurring in, During Casting (Note) 271
Metals, Non-Ferrous, Adapting to New Uses (Note) 267
Metals of Oil Engine Construction (Note) 552
Metals, Protection of Against Corrosion (Note) 118

PAGE

Motors and Generators, Alternating Current, Theory; The Trend in Naval Engineering, by C. Huey ... 521
Motor Battleship, The First (Note) ... 93
Motorship Construction, Fall in (Note) ... 245
Naval Construction in 1931 (Note) ... 226
Nitride Hardened Steel, Uses of (Note) ... 555
Noise, Measurement of (Note) ... 396
Non-Ferrous Metals, Adapting to New Uses (Note) ... 267
Obituary ... 135
Oil Engine, Heavy, Junkers *Jumo 4* Aircraft (Note) ... 104
Oil Purifiers, Laundry Washers, Steering Controls, Voice Projectors, and Searchlights; The Trend in Naval Engineering, by C. Huey ... 317
Oils, Some Erroneous Ideas About (Note) ... 116
Panama Mail Liners, Preliminary Test of Boiler for (Note) ... 265
Patrol Boats for the U. S. Coast Guard, New; by Harvey F. Johnson 53
Platinum Substitute, Konel (Note) ... 268
Progress, Technical, in Marine Engineering During 1931 (Note) ... 248
Propeller Design Factors, Ship Trial Analysis to Obtain, by H. F. D. Davis ... 332
Propeller Design Methods, Some Comparisons in, by H. F. D. Davis ... 8
Propeller Design Methods, Some Comparisons; Discussion and Criticism, by J. M. Irish ... 222
Protection of Metals Against Corrosion (Note) ... 118
Protective Covering for Reserve Feed Water Tanks, by B. P. Ward ... 333
Purdue High-Pressure Boiler (Note) ... 124
Reserve Feed Water Tanks, Protective Covering for, by B. P. Ward ... 333
Roller (Tapered) Versus Ball Bearings, by J. E. Hamilton ... 407
Safety Glass, Hydro-Carbon Gas Detectors, Commutator Resurfacers, Commutator Undercutters and Portable Air Dryers; The Trend of Naval Engineering, by C. Huey ... 30
Saratoga and *Lexington*, U. S. Airplane Carriers; Estimated and Actual Engineering Performances of, by H. L. Dodson ... 141
Scaling Hammers, Aviator's Goggles, Electric Switches, Vegetable Peelers and Substitutes for Brass; The Trend in Naval Engineering, by C. Huey ... 206
Seachlights, Oil Purifiers, Laundry Washers and Voice Projectors; The Trend in Naval Engineering, by C. Huey ... 317
Ship Sections, Transverse (Note) ... 550
Ships Under Construction at the End of 1931 (Note) ... 237
Shipyards of the United States, Output in During 1931 (Note) ... 240
Silver Solders, Engineering (Note) ... 376
Sinclair, W. P., and T. A. Solberg, Aluminum Foil Heat Insulation ... 200
Sinclair, W. P., and Ward, B. P., Testing of Naval Aviation Gasoline 285

PAGE

Solberg, T. A., Lieut. Commander, U .S. N., and W. P. Sinclair, Aluminum Foil Heat Insulation 200
Solberg, T. A., Lieut. Commander, U. S. N., Some Engineering Experiences Afloat 430
Solder, Silver, Engineering (Note) 376
Some Engineering Experiences Afloat, by T. A. Solberg 430
Spanner, E. F., Discussion, Tragedy of *R–101* 358
Spring, Helical, Formulas and Tables, New (Note) 375
Steam Tables, Comparison of Recent (Note) 366
Steel, Nitride Hardened, Uses of (Note) 555
Steels, Aluminum-Chromium-Molybdenum, Surfacing Hardening of, by Nitrogen (Note) 109
Steering Controls, Oil Purifiers, Laundry Washers, Voice Projectors, and Searchlights; Trend in Naval Engineering, by C. Huey 317
Storage Batteries, Alkaline, by F. Brehme 214
Tables and Formulas, New Helical Spring (Note) 375
Tables, Recent Steam, A Comparison of (Note) 366
Technical Progress in Marine Engineering During 1931 (Note) 248
Test Data, Interpretation of Value of (Note) 559
Testing of Naval Aviation Gasoline, by B. P. Ward and W. P. Sinclair 285
Test, Preliminary, of Boiler for Panama Mail Liners (Note) 265
Test Results and Service Value of Materials (Note) 559
Torbet, M. W., United States Lines Liner, S. S. *Manhattan,* Description and Trials 480
Transmission, Hele-Shaw Hydraulic, by J. F. Cooke 25
Trial Analysis, Ship, to Obtain Propeller Design Factors, by H. F. D. Davis 332
Trials and Description, United States Lines S. S. *Manhattan,* by M. W. Torbet 480
Trials and Description of Matson Liner S. S. *Mariposa,* by O. L. Cox 66
United States Lines Liner S. S. *Manhattan,* Description and Trials, by M. W. Torbet 480
Vegetable Peelers, Aviator's Goggles, Electric Switches, Scaling Hammers, and Substitute for Brass; The Trend in Naval Engineering, by C. Huey 206
Voice Projectors, Oil Purifiers, Laundry Washers, Steering Controls, and Searchlights; The Trend in Naval Engineering, by C. Huey 317
Ward, B. P., Lieut., U. S. N., Protective Covering for Reserve Feed Water Tanks 333
Ward, B. P., Lieut., U. S. N., and W. P. Sinclair, Testing of Naval Aviation Gasoline 285
Waves, by Wm. H. Crew 298
Welding Aluminum, Practical Points on (Note) 269
Welding, The Shielded Arc Process of, by J. C. Lincoln 1